technological advantage. If aircraft are equipped with LSTs and NVDs, this greatly improves the fighters' ability to pin-point target locations and accurately identify friendly positions.

The Navy and Marine Corps currently have a night CAS capability with the F/A-18, A-6E, and AV-8B. The Air Force is now developing this capability with the acquisition of NVDs for both the A/OA-10 and the F-16 communities. This acquisition will require both CAS pilots and TACPs to establish building-block training programs for night

operations. As Air Force operational fighter squadrons receive this capability, TACPs will increasingly be able to train at night with Navy, Marine Corps, and Air Force assets.

Night CAS requires equipment that is not currently authorized for most conventional TACPs, and the cost of this equipment may be prohibitive, given smaller budgets. The tables of allowances are being adjusted, however, to reflect night CAS requirements. TACPs will be equipped with IR position markers and IR target designating

devices as funding allows. With this type of equipment and training, the Air Force will consistently be able to provide ground forces with the accurate close air support they need at night.

Captain Phillip P. Taber, a U.S. Air Force officer, served as air liaison officer for 3d Brigade, 24th Infantry Division, at Fort Benning, Georgia, and participated in two National Training Center rotations. He served in Operation DESERT STORM with the 35th Tactical Fighter Wing and is now assigned to the 57th Fighter Squadron, 33d Fighter Wing, at Eglin AFB, Florida.

## Air Assault Decision Matrix

## **CAPTAIN S.F. KUNI**

No formal criteria exist for selection or rejection of an air assault course of action employed by the opposing force (OPFOR) regiment. I have made, used, and refined an air assault decision matrix at the National Training Center (NTC). Although this matrix is fairly objective, it can be tailored to fit the needs of U. S. Army units in different situations and locations.

Some of the factors shown on the matrix are defined as follows:

Enemy locations and reaction times. Enemy elements are not in a position to bring effective direct fire (mounted or dismounted) on the air assault forces for 20 minutes after landing.

Landing under friendly observation. Reconnaissance has eyes on proposed LZ and has reconned the mounted routes to the LZ and found no enemy there.

Landing zone (LZ) secure. No enemy is currently in a position to bring effective direct fire on the LZ without moving.

LZ inaccessible to tracks. Terrain between the LZ and the actual or

templated position of tracked vehicles is so broken that traversing or bypassing it would take longer than 20 minutes.

Hides at or near LZ. Ground within 200 meters of the LZ gives infantry 360-degree protection from mounted weapons.

Good alternate LZs. Alternate LZs at least 1,500 meters from primary LZ with terrain that blocks direct fire between them.

Distance from LZ to objective. Ten kilometers or less for last-light insertions, 500 meters or less for first-light insertions.

Covered and concealed routes to objective. Adequate 360-degree cover from direct-fire weapons is within 25 meters of the planned route.

**Objective hot or cold.** No enemy can bring direct fire on the objective without moving.

**Doctrinal application.** Air assault goes to the objective or lands unopposed in support of higher operations, and link-up with mechanized forces is planned and accomplished.

Length of time until link-up with

mechanized forces. A realistic link-up is planned within six hours.

Some of these criteria may change, and some factors may have to be added or deleted on the basis of different unit needs. Some other factors I am considering for inclusion later are listed below. They all relate to one another.

Did the air mission commander (AMC) attend the order briefing? Did the plan change after the aviators left the briefing?

Complexity of air mission and unit cohesiveness. Does the mission involve splitting lifts into serials or multiple LZs or is it "same way, same day"? Is one unit flying the mission or two (such as allied aviation attached for training)? Is the AMC familiar with the area and unit procedures?

How much time does the commander get between final plan and execution time? Is he or his unit flexible enough to react to a late change or a fragmentary order (FRAGO) and still accomplish the mission?

What is the overall proficiency of the unit involved? Some units can ac-

complish simple missions, given enough time to practice and plan them. But if time is taken away and complexity increased, they will fail dismally. Other units need only Class V and a FRAGO to succeed.

The following are the directions for using the matrix:

For each factor, place a 1 (good), a 2 (neutral or not so good), or a 3 (worst or bad) in the column for each COA. Repeat values are possible (for example, both COAs 1 and 3 might receive the value of "1" for hides at or near the LZ). Factors that are equal get the same number. The usual method is to combine and divide for an average, but this works when the desired end is to select one course of action over the others.

The purpose of this matrix is primarily to evaluate the probability of success of each COA. This gives a relative number to each. The COA with the lowest total number has the best chance for success and subsequent mission accomplishment. The commander can then select one on the basis of which survivable COA best suits his plan.

In 14 air assaults conducted earlier, I retroactively assigned values to each based on the above matrix. I arrived at values from 17 to 31.

I define success as having at least a squad still alive at change of mission and/or able to affect the outcome of the battle. Table 2 places the score of each air assault on a value line with either an "S" (success) or an "F" (failure). Without statistical interpretation, it is apparent that anything over a value of 26 incurs an increased chance of failure.

The weakness in this tool is that all values were assigned after the fact, a luxury of hindsight. To test the accuracy and reliability of the matrix, I needed to test it by applying values to an operation twice—during rotational planning (wargaming) and again at the conclusion of the operation (hindsight) as a control.

Using one of the rotations, I assigned values ranging from 18 to 22 for the different COAs for the first motorized rifle regimental (MRR) air assault, 21 for the forward detachment's air

AIR ASSAULT DE	CISION	MATRIX	
COURSES OF ACTION	COA 1	COA 2	COA 3
FACTORS			
Air routes not subject to enemy fires and observation			
Enemy locations and reaction times to LZs			
LZ under friendly observation		,	•
LZ secure			
LZ not accessible to tracks			
Hides at or near the LZ			
Good alternate LZs			
Distance to the objective from the LZ			,
Covered and concealed routes to the objective	*		
Objective hot or cold			
Doctrinal application			
Length of time until link-up with mechanized forces			
RISK	1-	2-	3-
Tabi	e 1		

assault, and 22 to 24 for the second regimental attack. What remained was to reassign values at pre-mission just before jump-off and again after the operation to see if the instrument offers any predictive capability.

In a blind comparison of the first MRR's air assault, wargaming produced a score of 22, pre-mission information produced a 24, and post-mission produced a 19. Factors that produced the final score included the presence of regimental reconnaissance on the LZ

eginicitai reconna				
	JCCESS/FAILURE IR ASSAULTS			
***************************************	IIN MUUNUUU			
16	•			
17	S			
18	S			
19	<b>S</b>			
20	SS S			
21 22	5 SS			
22	SS			
23 24	S			
25	3			
26				
27				
28	F			
29	F			
30	• •			
31	F			
32				
,	do 9			
Ide	Table 2			

and securing it. This mission was marginally successful.

The forward detachment's air assault had its wargaming score invalidated by late change of plan. The pre-mission score was 24, and the post-mission score was 21. The factors that helped lower the score were unopposed infiltration, enemy locations and reaction times, and a cold LZ. This mission was a resounding success.

A change of plan also invalidated the second MRR's air assault wargaming score. The pre-mission score was 17; the post-mission score was 19. Factors that influenced this mission included two different units with two types of aircraft, a last-minute change of plans, and an incorrect touchdown point well within range of a Bradley's direct fire. The insertion of the second lift at the alternate LZ was well-executed by the aviators. This low numerical value results from factors that do not appear in the matrix (as described above). This mission was not successful.

After some time, I received suggestions to weight some of the variables. Using the 14 previous air assault scores, I doubled the numbers of the factors for

infiltration route, hot-cold LZ, and hot-cold objective. I did this again, doubling the scores of just the infiltration and LZ factors. Both times, I noticed no real changes in the data points, just an increase in the spread. From this I draw several general conclusions: Post-mission scores appear to be lower than pre-mission scores. When I add five more scores from the two groups to Figure 2, I have a total of 19 missions (the infantry liaison officers did two of the air assaults). These points show successes at 19, 19, 21, and 24 and a failure at 19. Even given the small sample, these

five additional data points indicate that post-mission scores are equal to or less than pre-mission scores.

I also tried to "fit" the air assaults from the two rotations after adding weights to both the scores and the success-failure spread. Although I do not feel a need to do so, it makes sense (or at least adds comfort) to weight the factors that are most critical to the success of the operation. In predicting success and failure, they fit well in all cases, weighted and unweighted.

I believe this instrument is basically reliable, but its accuracy can be

improved with the use and refinement of the factors involved. It offers a way to select the least risky COA and, by extension, the best chance of survival for air assaults. And without survival, even the highest payoff possibility turns into no payoff at all.

Captain S.F. Kuni currently assigned to Fort Bragg, was liaison officer to the National Training Center's opposing force, the 1st Battalion, 63d Armor, in which he has also served as a platoon leader and a company executive officer. He is a 1989 ROTC graduate of Augusta College in Georgia.

## Readiness in the Reserves Active Component Support to RC Training

## LIEUTENANT COLONEL ROBERT W. BROWN

The "Active Component to Reserve Component" (AC/RC) dedicated support program is an aggressive, Congressionally mandated measure designed to improve the readiness of selected RC units. Unfortunately, the program is complex and not well understood by most soldiers in both components.

The AC officers and noncommissioned officers (NCOs) assigned to the program help RC units plan, prepare, and conduct collective training at company level and below and command and staff training at battalion and brigade level during premobilization periods. Upon mobilization, the AC soldiers provide dedicated assistance to mobilization station commanders in validating Army National Guard (ARNG) and U.S. Army Reserve (USAR) units for deployment.

The mission of this program is to improve the ability of the RC commanders and staffs to train their units. As part of

this effort, regional training teams (RTTs) and resident training detachments (RTDs) exist to help the commanders of selected RC units develop and execute training plans that support their mission essential task lists (METLs).

RTTs and RTDs are the critical links between RC units and their wartime counterpart AC organizations. The members become personally involved in teaching, coaching, and mentoring RC units. They provide unit commanders with accurate and timely feedback on the execution of training and then help develop plans for any corrective training that may be needed. The AC soldiers assigned to the teams and detachments are highly proficient subject matter experts in their technical and tactical areas and in the application of battle-focused training and after-action review (AAR) techniques.

The initial RTDs were assigned to

readiness groups (RGs) for command and control but were stationed for duty with a supported RC battalion or brigade and its subordinate units. A detachment consisted of four AC soldiers—two officers and two NCOs. Members of an RTD normally provided direct-support advice and assistance for one RC commander and staff and worked with that RC unit on a daily basis.

The RTD's primary mission consisted of the following:

- Help with battle-focused training management (including the development of METLs, command training guidance, yearly training calendar, and yearly training briefing).
- Help in developing and conducting high-quality soldier, leader, and battle staff training.
- Help in integrating simulation devices and software-based training.
  - Help in developing training sites,